

United States Department of the Interior

Read & Stevens, Inc.
North Lea Federal No. 2

SURFACE CASING

All casing is 54.5 #/ft., K-55, butress thread

	Item (bottom to top)	Length	Top of Section - KB
	Guide shoe (thread locked)	1.15'	1,606.85'
1	Joint of casing (thread locked)	40.68'	1,566.17'
	Float collar (thread locked)	1.70'	1,564.47'
36	Joints of casing (thread locked bottom jt.)	1,541.87'	22.60'
37	Total Pipe	1,585.40'	
	KB to C H F	22.60'	
	Casing set at:	1,608.00'	KB

Notes: Ran 3 centralizers; one each on first 3 joints.

Casing Specs.: ID = 12.615", drift = 12.459", collapse = 1130 psi, IV = 2730 psi

INTERMEDIATE CASING

All casing is 8-5/8", 32 #/ft., ST & C, K-55 or S-80 (see following for details).

	Item (bottom to top)	Length	Top of Section - KB
	Float shoe (thread locked)	1.87'	5,196.13'
1	Joint of casing (thread locked), S-80	41.87'	5,154.26'
	Float collar (thread locked)	1.85'	5,152.41'
20	Joints of casing (thread locked bottom jt.), S-80	871.76'	4,280.65'
28	Joints of casing (thread locked bottom jt.), K-55	1,107.00'	3,173.65'
	DW Packer Collar	3.70'	3,169.95'
74	Joints of casing (thread locked bottom jt.), K-55	3,149.95'	20.00'
123	Total Pipe	5,178.00'	
	KB to C H F	20.00'	
	Casing set at (casing tally):	5,198.00'	KB

Notes: Casing set depth adjusted to drilling measurements; casing tally set depth 5,210' KB.

Ran 12 centralizers & 3 baskets; see tally for details.

Casing Specs.: ID = 7.921", drift = 7.796", collapse = 2530 psi K-55 & 4130 psi S-80; IV = 3930 psi both grades.

PRODUCTION CASING

All casing is 5-1/2", 23 #/ft., LT & C, P-110 (see following for details).

	Item (bottom to top)	Length	Top of Section - KB
	Halliburton float shoe (thread locked)	1.70'	13,848.30'
1	Joint of casing (thread locked)	36.65'	13,811.65'
	Halliburton float collar (thread locked)	1.32'	13,810.33'
100	Joints of casing (thread locked bottom jt.)	3,651.59'	10,158.74'
	Halliburton DV tool (thread locked top & bottom)	2.32'	10,156.42'
281	Joints of casing	10,136.42'	20.00'
382	Total Pipe	13,830.00'	
	KB to C H F	20.00'	
	Casing set at (casing tally):	13,850.00'	KB

Notes: Ran 35 centralizers & 3 baskets; see tally and notes for details and for sand blasted intervals.

Casing Specs.: ID = 4.670", drift = 4.545", collapse = 14,520 psig
IV = 13,580 psig; make-up torque 6600 ft.-lbs.